What is claimed is:

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1. An apparatus for incremental data storage, the apparatus comprising:

a baseline partition containing a baseline image;

an incremental log configured to store data, the incremental log comprising at least one snapshot partition; and

a partition module configured to automatically partition the incremental log into an additional snapshot partition in response to a snapshot operation.

2. The apparatus of claim 1, wherein the partition module is further configured to assign a volume identifier to a newly formed partition as directed by a storage management policy.

3. The apparatus of claim 1, further comprising a storage management module configured to support storage management policies selected from the group consisting of temporal-based policies, status-based policies, and event-based policies.

4. The apparatus of claim 1, further comprising a compaction module configured to compact a snapshot partition.

5. The apparatus of claim 4, wherein the compaction module is further configured to conduct compaction as directed by a storage management policy.

6. The apparatus of claim 5, wherein the storage management policy is selected from the group consisting of a temporal-based policy, a status-based policy, and an event-based policy.

7. The apparatus of claim 4, wherein the compaction module is further configured to conduct in-place compaction.

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8. The apparatus of claim 4, wherein the compaction module is further configured to automatically compact a snapshot partition to the baseline volume.

9. The apparatus of claim 1, further comprising a copy module configured to copy selected log entries to the tertiary volume.

10. The apparatus of claim 1, further comprising a read module configured to retrieve the most recent data corresponding to a block address.

11. The apparatus of claim 1, wherein the read module is further configured to retrieve the most recent data corresponding to a specified snapshot volume and block address.

12. An interface for managing incremental data storage, the interface comprising:

a write function configured to append an entry to an incremental log;

a read function configured to retrieve a most recent log entry corresponding to a block address; and

a snapshot function configured to automatically partition the incremental log into a first and a second volume.

13. The interface of claim 9, further comprising a policy assignment function configured to assign a policy to an incremental log.

14. The interface of claim 9, further comprising a read next entry function configured to retrieve a sequential entry from the incremental log.

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15. The interface of claim 9, further comprising a compact volume function configured to compact a snapshot volume.

16. The interface of claim 9, further comprising a delete volume function configured to release a snapshot volume.

17. A method for managing incremental data storage, the method comprising:

appending data to an incremental log;

automatically partitioning the incremental log in response to a snapshot operation; and

automatically assigning a volume identifier to a newly formed partition.

18. The method of claim 17, wherein automatically assigning a volume identifier to a newly formed partition occurs as directed by a storage management policy.

19. The method of claim 17, further comprising conducting in-place compaction of a snapshot partition.

20. The method of claim 17, further comprising automatically compacting a snapshot partition.

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21. An apparatus for managing incremental data storage, the apparatus comprising:

means for appending data to an incremental log;

means for automatically partitioning the incremental log in response to a snapshot operation;

means for automatically assigning a volume identifier to a newly formed partition; and

means for conducting in-place compaction of a snapshot partition.

22. A system for redundant incremental data storage, the system comprising:

a primary storage device configured to store data;

a secondary storage device configured to store data within a baseline volume and an incremental log comprising at least one snapshot partition that corresponds to a snapshot volume;

a controller configured to store and access data on the primary and secondary storage device; and

a snapshot management module configured to automatically partition the incremental log into an additional snapshot partition and associate the additional snapshot partition with a volume identifier in response to a snapshot operation.

23. The system of claim 22, wherein the snapshot management module is further configured to automatically compact a snapshot volume into the baseline volume in response to the snapshot operation.

24. The system of claim 22, wherein the snapshot management module is further configured to conduct in-place compaction of a snapshot partition.

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25. The system of claim 22, wherein the primary storage device comprises a plurality of redundantly arranged storage devices.

26. A computer readable image for managing incremental data storage, the computer readable image comprising program code configured to conduct a process comprising:

append data to an incremental log;

automatically partition the incremental log in response to a snapshot operation; and

automatically assign a volume identifier to a newly formed partition.

27. The computer readable image of claim 26, wherein the process further comprises conducting in-place compaction of a snapshot partition.

28. The computer readable image of claim 26, wherein the process further comprises automatically assigning a volume identifier to a newly formed partition occurs as directed by a storage management policy.

29. The computer readable image of claim 26, wherein the process further comprises conducting in-place compaction of a snapshot partition.

30. The computer readable image of claim 26, wherein the process further comprises automatically compacting a snapshot partition.

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